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| 10/090,436      | 02/28/2002  | Justin Ridge         | 944-004.006         | 6314             |

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| EXAMINER |
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BAYAT, ALI

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| ART UNIT | PAPER NUMBER |
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2625

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/090,436

Applicant(s)

RIDGE, JUSTIN

Examiner

Ali Bayat

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-15 is/are rejected.
- 7) ☒ Claim(s) 16-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/20/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: Reasons for allowance of claims 1-10.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornog et al. (U.S. 6330,369) in view of Sprague (U.S. 5,699,458).

In regard to claim 11, Cornog provides for a method of modifying a quantization table (Fig.1 element 44, col.4 lines 59-60) for reducing the size of a compressed input image (Fig.1 element 20) to an output image of a target size (Fig.1 element 32, col.4 lines 50-51), wherein the input image is decoded into a partially decompressed image to provide quantized coefficients (Fig.1 element 26), which are quantized according to the quantization table, the quantized coefficients including zero and non-zero values, said method comprising the steps of:

Determining an estimated scaling factor (Fig.1 element 40, col.4 lines 55-60) based on the target size (Fig.1 element 42, col.4 lines 55-60); scaling the quantization table by the estimated scaling factor for providing a modified quantization table (Fig.1 element 44, col.4 lines 55-60). Cornog does not provide for scaling the non-zero coefficients based on the estimated scaling factor for recompressing the partially decompressed image into the output image. Sprague provide for scaling the non-zero coefficients (col.7 lines 8-15). The prior art of Cornog et al. and Sprague are combinable because they are from the same field of endeavor (limiting data rate in digital images).

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At time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Sprague (col.7 lines 8-15), with the system and method of Cornog to obtain the invention as specified in claim 11. Because a thumbnail image is an image of lower resolution or quality than the original image from which it is derived, which consequently requires less bandwidth to transmit because it may be represented by fewer bits col.1 line64-col.2 line 2 of Sprague.

With regard to claim 12, Cornog provides for a method, wherein the estimated scaling factor is a constant floating point value (col.6 lines 44-45, note rc\_alpha).

As to claim 13, Cornog provides for a method, wherein the compressed input image is a JPEG image (col.9 lines 15-16).

In regard to claim 14, Cornog provides for a method, wherein the estimated scaling factor, which is utilize for estimating the size of the output image based on the estimated scaling factor, is determined in advance of the recompression (col.6 lines 53-57).

With regard to claim 15. See rejected claim 1 above. It recites similar limitation as claim 15. Hence it is similarly analyzed and rejected.

***Allowable Subject Matter***

2. Claims 1-10, are allowed.

The following is an examiner's statement of reasons for allowance: the closest prior art of Cornog provides for a method and apparatus for limiting data rate and image quality loss in lossy compression of sequences of digit images, further provides for a New SF (new scale factor), which ranges from 1.0-2.0, depending on the source

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material being processed and target data rate, and OldSF (old scale factor), which is the value of the scale factor that was used to compress the current frame. Col.6 lines 44-50.

And further more the prior art of Sprague provides a computer-implemented method and system for browsing encoded images. Further Sprague provides for rate controller 306 adjusts the bit rate by varying the quantization levels to be applied to the DCT coefficients of the transformed video image. Col.6 lines 1-3. Neither Cornog et al. nor Sprague, separately or combined, teaches the features of **"obtaining a range of reduction factors based on the selected range of quality scaling factors for determining a quality-size relationship; computing an estimated quality scaling factor corresponding to the target size based on the quality-size relationship; obtaining an estimated reduction factor based on the estimated quality scaling factor for providing a difference between the target size and the size reduction effected by the estimated reduction factor; and refining the range of the quality scaling factors for reducing the difference until the difference falls within a predetermined limit"**, as cited in independent claims 1 and 6.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Objected Claims

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3. Claims 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Contact Information**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 703-306-5915. The examiner can normally be reached on M-Thur 9:00-7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat *AB*  
Patent Examiner  
Group Art Unit 2625  
12/26/04

*Kanubhai Patel*  
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PRIMARY EXAMINER